WHAT IS CLAIMED IS:

1. A method of driving a liquid crystal display device of in-plane-switching mode for applying an electric field substantially parallel to a substrate surface, including a pair of substrates, a liquid crystal layer placed between the pair of substrates, a plurality of gate lines placed above one of the pair of substrates, a plurality of source lines placed to cross the gate lines with an insulative layer interposed therebetween, a switching element placed in a near proximity to a crossing point of the gate lines and the source lines, and a pixel electrode connected to the source lines through the switching element, to which a signal voltage required for image display is supplied by the source line through the switching element, comprising:

a step of setting an average value of the signal voltage in such a way that an average value of a positive polarity voltage and a negative polarity voltage of the pixel electrode varies with a grayscale to be displayed, and

a step of inputting the average value of the signal voltage to the pixel electrode.

2. A method of driving a liquid crystal display device according to Claim 1, wherein the average value of

the signal voltage is an average of two values of grayscale reference voltages input to a source line drive circuit for generating the signal voltage from an external unit.

3. A liquid crystal display device of in-plane-switching mode for applying an electric field substantially parallel to a substrate surface, comprising:

a pair of substrates;

a liquid crystal layer placed between the pair of substrates;

a plurality of gate lines placed above one of the pair of substrates;

a plurality of source lines placed to cross the gate lines with an insulative layer interposed therebetween;

a switching element placed in a near proximity to a crossing point of the gate lines and the source lines; and

a pixel electrode connected to the source lines through the switching element, to which a signal voltage required for image display is supplied by the source line through the switching element,

wherein an average value of the signal voltage supplied by the source line is set in such a way that an average value of a positive polarity voltage and a negative polarity voltage of the pixel electrode varies with a grayscale to be displayed.

4. A liquid crystal display device of in-plane-switching mode according to Claim 3, wherein the average value of the signal voltage is an average of two values of grayscale reference voltages input to a source line drive circuit for generating the signal voltage from an external unit.